

AMENDMENTS TO THE CLAIMS

1. (currently amended) A fuel cell vehicle having a vehicle body and a polymer electrolyte fuel cell mounted in said vehicle body, said fuel cell including a stack formed by stacking a plurality of unit power generation cells, a stack container case containing said stack, and a condenser provided in said stack container case, wherein

in said polymer electrolyte fuel cell, each of said unit power generation cells includes an electrolyte electrode assembly and a first separator and a second separator sandwiching said electrolyte electrode assembly, said electrolyte electrode assembly including an anode electrode, a cathode electrode, and a solid polymer electrolyte interposed between said anode electrode and said cathode electrode;

said stack is immersed in an electrically insulating liquid coolant inside said stack container case to cool said stack;

said stack container case is provided under a passenger compartment of said vehicle body; [[and]]

an air supplied from an air inlet of said vehicle body contacts said condenser to condense the liquid coolant vaporized at said stack container case when cooling said stack; and

a plurality of protrusions protruding toward said stack are provided on an inner surface of said stack container case such that front ends of said plurality of protrusions surround said stack, and said protrusions are exposed from a surface of the liquid coolant.

2. (previously presented) A fuel cell vehicle according to claim 1, wherein coating is applied to at least one of a surface of said condenser and an inner surface of said stack container case.

3. (previously presented) A fuel cell vehicle according to claim 2, wherein the coating comprises fluorine resin.

4. (previously presented) A fuel cell vehicle according to claim 3, wherein the coating comprises polytetrafluoroethylene.
5. (previously presented) A fuel cell vehicle according to claim 1, wherein said stack includes a cooling plate having at least one groove for supplying the liquid coolant into said stack.
6. (canceled)
7. (previously presented) A fuel cell vehicle according to claim 1, further comprising a trapping section for trapping the condensed liquid coolant at said condenser, and a circulation mechanism for allowing the liquid coolant to flow from said trapping section back to said stack container case.
8. (previously presented) A fuel cell vehicle according to claim 1, wherein the liquid coolant is a liquid which can be boiled into vapor in the nucleate boiling state.
9. (previously presented) A fuel cell vehicle according to claim 8, wherein the boiling temperature of the liquid coolant is lower than an operating temperature of said stack by 10°C to 25°C.
10. (previously presented) A fuel cell vehicle according to claim 9, wherein the liquid coolant is a lower alcohol or a solvent of fluorine compound.
11. (previously presented) A fuel cell vehicle according to claim 1, further comprising an air discharge assistance mechanism for assistance to discharge the air supplied from said air inlet to the outside of said vehicle body.